Tynker brings programming lessons into the home

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(Phys.org) —Tynker announced last week that its educational system for teaching programming to students in elementary and middle schools will take on a new offering, and it is now for home use too. The Tynker for Home system arrives on the heels of Tynker for Schools, which was launched in April as a ready to use curriculum. The courses teach programming skills and computational thinking. Students are exposed to the problem-solving process, knowing how to use computing tools and

taking steps needed to solve problems.

Tynker's lessons in the school can introduce the fundamentals in grades three to eight along with teacher lesson plans, email and telephone support. The system, according to Tynker, has been put to use in "hundreds" of schools. This visual programming platform allows students to learn at their own pace and the teacher extends one on one attention. While intended for students starting at grade three, the company web site makes note that there is no right age to learn how to code, only stages that can be recommended as levels of readiness where students are able to read, write, and understand relationships between cause and effect.

The company founders built the system as a browser-based platform written with Open Web standards such as JavaScript, HTML5 and CSS3. The system has character editors and other tools. The company attributes its inspiration from Scratch, launched in 2009 as a program for teaching young people, especially ages eight to 16, how to create their own stories, games, and animations. Scratch was launched as a project of the Lifelong Kindergarten Group at the MIT Media Lab.

To come up with the Tynker home edition, Tynker CEO Krishna Vedati, turned to David McFarland, Portland, Oregon-based web developer and author of O'Reilly's "The Missing Manual" series on Dreamweaver, JavaScript and CSS. He also teaches at Portland State University.

The result is an "Introduction to Programming" course. If a child were told a weekend morning would be spent learning vector drawing, encapsulating code, and absolute positioning, the child would think this was some sort of punishment, like a time out in a corner, but McFarland's course is teaching the fundamentals through such lessons as Train the Dog, Robot Defense, and TynkerBlocks. The self-paced course is designed for children in fourth through eighth grades and costs $50

per student.

The course includes use of a multimedia library with sounds, animations and scenes along with game design tools. Badges are offered at the end of each chapter; students take quizzes and solve puzzles for an assessment of what they have learned from each chapter; a final exam is tied to their earning certification of having completed the course.

Tynker's lessons for school and home use come at a time when those in the computer industry see the increase in such teaching initiatives as not as too many fingers in the pie but rather with relief that such options are increasing. Campus teams, foundations and technology executives want to see the education of children as future programmers and engineers under way, as most American elementary schools offer no introduction to programming. Many computer professionals say that computational thinking and computer programming should be part of a student's education.

Snap!, for one, is a reimplementation of BYOB (Build Your Own Blocks), a language for teaching high school and college computer science. The initiative was inspired by Scratch. Snap! is a visual, drag-and-drop programming language presented by the University of California at Berkeley. Elsewhere, Code.org has said its mission is in bringing computer science classes to every K-12 school in the United States, especially in urban and rural neighborhoods.

More information: www.tynker.com/

Press release